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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/977,410	10/15/2001	Lyndon W. Graham	SEM4492P0102US	4366
63462 7590 07/16/2007 ROCKEY, DEPKE & LYONS, LLC SEARS TOWER SUITE 5450 CHICAGO, IL 60606-6306			EXAMINER LEADER, WILLIAM T	
			ART UNIT 1753	PAPER NUMBER
			MAIL DATE 07/16/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/977,410
Filing Date: October 15, 2001
Appellant(s): GRAHAM ET AL.

MAILED
JUL 16 2007
GROUP 1700

Keith V. Rockey
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed February 28, 2007, appealing from the Office action mailed December 1, 2005.

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(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

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(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,443,707	Mori	8-1995
4,304,641	Grandia	12-1981

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 112

1. Claims 35 and 38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.
2. Appellant copied claim 35 from claim 1 of patent 6,132,587 issued to Jorné et al, and copied claim 38 from claim 19 of the patent. The Jorné et al patent is directed to the uniform electroplating of semiconductor wafers. Various embodiments of plating apparatus are shown in the figures of Jorné et al. One embodiment is shown in figure 1. This embodiment includes porous separator 8. Claim 1 recites a porous separator. In the embodiment shown in figure 3, the apparatus additionally includes distributor 21 which has many holes 22. Claim 19 recites a distributor having a plurality of holes.

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3. Appellant's specification lacks literal support for the language of the copied claims. In appellant's Remarks of October 15, 2001, appellant indicates that support for the claim 35 limitation "a non-conducting porous separator between said wafer holder and said counter-electrode" is found at page 21, lines 23 through page 22, line 2 of appellant's specification which describes diffusion plate 375. Claim 38 recites the limitation "a distributor positioned in said reservoir including a disk having a plurality of holes adapted to provide a flow of electrolyte through the disk that is uniform along a radius of the disk." Again, in the Remarks of October 15, 2001, appellant points to the description of diffusion plate 375 as providing support for this claim limitation.

4. Neither appellant's specification nor the Journé et al patent defines "porous" or "hole". In the event a term is not given a particular meaning by an applicant, the conventional dictionary definition is used. The American Heritage Dictionary, New College Edition (1976) defines "porous" as "possessing or full of pores". A "pore" is defined as "a minute opening" or "a small interstice admitting adsorption or passage of liquid". "Hole" is defined as "a cavity in a solid". Based on these different definitions, "porous" or "pores" are not considered to be synonymous with the term "hole".

5. Journé et al characterize elements 8 and 21 differently. As noted above, element 8 is called a porous separator while element 21 is described as a distributor with holes. Based on the distinct use in Journé et al of the terms "porous" and "holes" and the different dictionary definitions, it is concluded that in this art a porous separator is structurally different than a distributor with holes.

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6. Appellant has relied on the description of element 375 as shown in figure 8 to provide support for the limitations of both claim 35 and claim 38. Specifically, page 21, line 23 through page 22, line 2, the portion of specification relied on by appellant, state "Fig. 8 also shows a diffusion plate 375 provided above the anode 334 for providing a more even distribution of the fluid plating bath across the wafer W. Fluid passages are provided over all or a portion of the diffusion plate 375 to allow fluid communication therethrough." Figure 8 shows the diffusion plate 375 as having distinct holes. This structure, and the description in appellant's specification, is considered to generally correspond to distributor 21 with holes 22 of Jorné et al. Figure 8 is not considered to show "minute openings" consistent with the dictionary definition of pores and, consequently, neither Figure 8 nor the description in the specification is considered to provide basis for the copied claim language of claim 35.

7. The last portion of claim 38 recites the limitation "a distributor positioned in said reservoir including a disk having a plurality of holes adapted to provide a *flow* of electrolyte through the disk that is uniform along a *radius* of the disk" (emphasis added). The portion of the specification relied on by appellant and quoted above makes no mention of *flow* which is uniform along a *radius* of the disk. Clearly, flow may be measured in directions other than along a radius, for example, along a chord of a circular article. Apparatus for electroplating wafers which includes a distributor positioned in a reservoir including a disk having a plurality of holes adapted to provide a controlled flow of electrolyte to provide uniform plating across the wafer were known in the art before the patenting of Jorné et al. See, for example, Grandia et al (4,304,641) which discloses apparatus with distributor plates having particular configurations of holes to provide for uniform plating thickness. See figures 2A and 2B. Not all such apparatus or

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all variations of holes provide flow which is uniform along a radius as recited by Jorné et al.

Neither Figure 8 nor the description in the specification is considered to provide basis for the copied claim language of claim 38.

8. It is noted that claim 35 recites that the porous separator is "non-conducting". The issue of support for this limitation was addressed by appellant at page 6 of the paper filed on October 1, 2003.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claim 36 is rejected under 35 U.S.C. 102(b) as being anticipated by Mori (5,443,707).

11. The Mori patent is directed to apparatus for electroplating onto a semiconductor substrate. A representative apparatus is illustrated in Fig. 6 and includes a reservoir 101 for electrolyte, a holder 106 adapted to hold a wafer above the reservoir, a counter-electrode (anode) 110 in the reservoir and disposed concentrically with holder 106, means for passing current between the counter-electrode and semiconductor substrate (column 3, lines 47-50), and a pump adapted for pumping electrolyte from the reservoir against the wafer (column 3, lines 38-41). Mori teaches that the counter-electrode should have a diameter no larger than one third of the diameter of the main surface of the cathode wafer holder (claim 1). All elements recited in claim 36 are taught by Mori.

(10) Response to Argument

In section A. of appellant's argument, appellant states that with respect to claim 35, the Examiner interposed the new ground of rejection for the purpose of avoiding declaring an interference. This statement is incorrect. The rejection of claim 35 was made because after a careful review of the terminology recited in the claim, the definitions of this terminology, and appellant's specification, it was determined that claim 35 failed to comply with the provisions of 35 U.S.C. 112, first paragraph. While this precludes the declaration of an interference as requested by appellant, this is the effect, not the purpose, of the rejection. Applicant further argues that with respect to the other claims, the proper course of action is to resolve those patentability issues in an inter parties proceeding. However, review by the Board of Patent Appeals and Interferences at this point in the prosecution is appropriate.

In section B. of appellant's argument, appellant contends that the rejection of claim 35 (and claim 38 as well) is a technical rejection lacking in merit. At page 9, appellant argues that functionally, in the context of this invention, there is no substantive difference between a hole and a pore. This argument is not persuasive. For the reasons given above, a porous separator as recited in claim 35 and a disk having a plurality of holes as recited in claim 38 are considered to be structurally different. At page 10, appellant argues that the present specification plainly supports openings of any dimension, and hence supports holes and pores. This argument is not convincing because there is no indication in the specification that appellant contemplated the minute openings of a porous separator. If one considers the expression "fluid passages" used by appellant in the specification as representing a genus, it does not follow that the possession of the genus enables all possible species within the genus. With respect to claim 38, appellant suggests

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that the Examiner has failed to take into account the sentence in the specification that calls for fluid passages provided "over all or a portion" of the diffusion plate, and argues that passages over all of the diffusion plate necessarily means that the openings extend over a diameter of the wafer along two radiuses. This argument is not persuasive because it is geometrically incorrect. Passages may be present over all of a plate without lining up along a radius or diameter of the plate. Additionally, the claim 38 does not simply recite that the holes are uniform along a radius of the disk, but that the holes are adapted to provide a *flow* that is uniform along a radius of the disk. The portion of the specification relied upon by appellant is not considered to support the subject matter of the copied claims.

In section C. of appellant's argument, appellant states that the Board should defer consideration of claim 36 so that patentability can be determined in an inter parties context. Appellant suggests that there is a risk that the tribunals of the Patent Office could reach diametrically opposite conclusion respecting the patentability of the same claim. However, as noted above, review by the Board of Patent Appeals and Interferences at this point in the prosecution is appropriate.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

WL

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